Oregon
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December 6, 2006

Dennis Norton
Portland General Electric
121 SW Salmon St.
Portland, Oregon 97204

RE: No Further Action Determination
PGE Substation E East
2635 NW Front Ave., Portland, Oregon
ECSI #3976

Dear Mr. Norton:

The Oregon Department of Environmental Quality (DEQ) reviewed the above-referenced project file. The purpose of this letter is to document DEQ's no further action (NFA) determination at the subject property. The project was conducted under DEQ's Voluntary Cleanup Program oversight in accordance with the Letter Agreement executed on October 23, 2003.

DEQ determined that no further action is required to address environmental contamination at the subject property. This determination is based on the regulations and facts as we now understand them, including but not limited to the following:

1. The 1.5-acre facility is located about 750 feet inland of the west bank of the Willamette River at river mile (RM) 10.4 within the Portland Harbor study area. The property currently consists of an unmanned control house, transformers, capacitors, switchgear and other electrical equipment, and the ground surface is covered by gravel. PGE has owned the property since 1903, and operated a power plant consisting of five oil-fueled boilers/engines/turbines starting in 1905. Oil was delivered to four on-site underground storage tanks (USTs) with a total capacity of 267,120 gallons from an 8-inch iron shallow subsurface pipeline connected to an over-water pump house on the western shoreline of the Willamette River and from a pipeline to the rail spur adjacent to the northwest side of the site.

2. In 1993 and 1994, PGE decommissioned three USTs that were used to store bunker oil for the former power plant, including one 560-barrel UST, one 1,520-barrel UST, and one 2,140-barrel UST. Decommissioning activities included removing oil and water from the USTs, removing all or part of each UST, removing 5,145 tons of petroleum-contaminated soil surrounding the USTs, draining and removing associated piping within the excavation area, off-site disposal of solids and liquids, and collection of confirmation samples. Polychlorinated biphenyls (PCBs) were not detected in oil and water samples collected from

each of the USTs. Confirmation soil samples collected near each UST indicated less than 170 mg/kg petroleum hydrocarbons around the 2,140-barrel UST and less than 630 mg/kg around the 560-barrel and 1520-barrel UST except for two inaccessible pockets of contamination left in place. One pocket, estimated to be 230 cubic yards (CY), was on the east side of the 560-barrel UST where the integrity of a water line and Front Avenue prohibited further excavation, and the confirmation sampled showed 61,000 mg/kg petroleum hydrocarbons at 13.5 feet bgs. The second pocket, estimated to be 35 CY, was on the northeast side of the former stack foundation, and the confirmation sample showed 4,800 mg/kg petroleum hydrocarbons at 16 feet bgs.

3. In 2003 and 2004, PGE decommissioned the second 2,140-barrel UST located in the central portion of the site. The residual product in the UST was determined to be bunker fuel (i.e., No. 6 fuel oil). PCBs were not detected in oil and water samples from the UST and the adjacent test pit. The UST characterization results indicated that soils and groundwater containing constituents of interest (COIs) are limited in extent and did not migrate offsite to the northeast. PGE subsequently decommissioned the UST by removing residual product, water and solids from the UST; cleaning and removing the steel liner; cleaning the concrete interior of the UST; removing soil and a small quantity of residual product along the exterior sidewalls of the UST; and backfilling the UST and soil excavations with clean backfill.

4. The Substation E East site investigation was performed between January and December of 2004. Soil and groundwater samples collected in and along the southwest side of NW Front Avenue indicated that the petroleum hydrocarbons left in place following the 1993/1994 UST decommissioning are limited in extent. They also indicated that there is no definitive link between the petroleum hydrocarbons released from the USTs that were decommissioned in 1993/1994 and the petroleum hydrocarbons discovered immediately to the northeast of NW Front Avenue.

5. The extent of COIs in soil and groundwater northeast of Front Avenue was delineated and is limited to the western corner of the former Terminal 1 North property and southern corner of the Sulzer Pumps property. COI concentrations in soil decrease to low or non-detectable concentrations in all directions, including to the northeast, towards the Willamette River. Site investigation results, when combined with results from investigations performed by other parties (e.g., the City of Portland, Port of Portland, and Sulzer Pumps), indicate that although many of the samples contained either bunker fuel or degraded bunker fuel, the historical pipeline is not the source. The site investigation results indicate that the potential for exposure to soils containing COIs is low because they are mainly present at depths of greater than 16 feet bgs.

6. The over-water historic pump house that piped fuel oil from ships to the PGE Substation E site was located in a small shoreline indentation at the boundary between the Port T1N and Sulzer sites (RM 10.4). The DEQ is not aware of any releases from the historic pump house that ceased operations over 30 years ago.

7. Soil samples collected along the historical oil pipeline that ran from the nearby rail spur in the western portion of the subject property indicate that a relatively shallow, localized area near the end of the pipeline contains bunker fuel. COI concentrations detected in soil along the pipeline generally did not exceed relevant human health or ecological screening levels.

8. Although PCBs were not evaluated in shallow surface soils in the Site Investigation, historic surface and subsurface soil data collected during the past 12 years by PGE indicate limited surface detections from occasional equipment leakage that were subsequently removed and disposed off site.

9. Soil and groundwater data were screened against EPA preliminary remediation goals (PRGs), DEQ human health RBCs, and DEQ terrestrial ecological screening level values (SLVs). Although some data exceeded screening levels, the extent of such moderately elevated concentrations of Total Petroleum Hydrocarbons (TPH) and PAHs are limited and exposure is not expected with current and reasonably likely future industrial land use. Therefore, residual contamination does not pose a reasonably likely unacceptable risk to human health and the environment.

10. DEQ's March 1, 2006 Source Control Decision was that this site is not a current or reasonably likely future source of contamination to the Willamette River and that no source control measures are required.

11. A U.S. EPA and Portland Harbor governmental and tribal partner comment period was conducted in March 2006 and comments were received from EPA and the City of Portland. DEQ resolved comments received and EPA submitted a letter agreeing with DEQ's Source Control Decision on October 13, 2006.

12. A public comment period was conducted March 1-31, 2006 on DEQ's recommended cleanup approval and no further action status. No public comments were received.

DEQ concludes that based on the information presented to date, remedies implemented at the PGE Substation E Site are protective of human health and the environment. The site requires no further action under the Oregon Environmental Cleanup Law, ORS 465.200 et seq., unless new or previously undisclosed information becomes available. We will update the Environmental Cleanup Site Information System (ECSI) database to reflect this decision.

The residual soil contamination does not pose an unacceptable risk to human health or the environment based on the site conditions as they exist today or as they may reasonably be expected to be in the future. However, if these contaminated soils are exposed by excavation or otherwise brought to the surface, PGE or the current property owner/operator are responsible for ensuring that the material be handled, managed, and disposed of in accordance with all applicable regulations. PGE or the current property owner are also responsible for notifying potential property purchasers about this remaining contamination.

Please contact Tom Gainer at 503-229-5326 if you have any questions.

Sincerely,

James M. Anderson, Manager
Portland Harbor Section
DEQ Northwest Region

cc: Stu Brown, Bridgewater
Tom Gainer, DEQ NWR
Mark Pugh, DEQ NWR